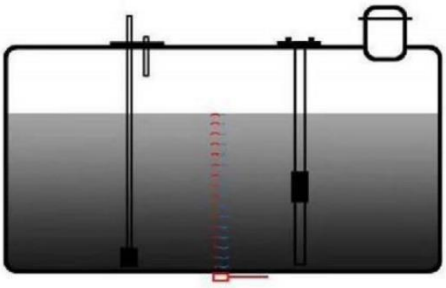
KUM2500C Ultrasonic Fuel Level Sensor

Introduction

KUM2500C ultrasonic fuel level sensor is a fuel quantity monitoring device designed for fleet managers of enterprises. It can be used to prevent drivers from stealing fuel, optimize operating costs, optimize driver driving behavior, and assist statistical decision-making. The sensor uses an ultrasonic probe to detect the oil level, and then intelligently processes the oil level signal through the built-in program of the host. Finally, the oil level information is sent to the system platform through GPS, and an oil level report is generated after analysis. The sensor supports serial port and analog output, and can be connected with most brands of GPS/Beidou all-in-one computers, and the sensor can be easily connected to the background monitoring system.

KUM2500C adopts the non-contact measurement ultrasonic sensor technology independently developed by the company and pioneered in China. It is currently widely used in automobile fuel consumption monitoring projects and exported to overseas.



Features

1. High precision. The resolution of the oil level sensor oil level height measurement is 0.1mm, and the measurement accuracy is ±0.5%, which can ensure high measurement accuracy in the high temperature and high cold external environment;
2. Good long-term stability. The oil level sensor adopts the ultrasonic measurement method and implements non-contact measurement, which is different from the direct contact float type, pressure type, and magnetic sliding measurement method commonly used at present, so as to avoid the oil level sensor from being corroded and polluted by fuel. It can maintain the stability of long-term measurement;
3. Easy installation and maintenance. It is only necessary to install the sensor probe under the outside of the fuel tank, without changing the original fuel tank measurement system, without opening and changing the fuel tank, and ensuring the normal operation of the original automobile fuel gauge;
4. Environmental protection, no pollution, low energy consumption, non-contact measurement, no need to drill or modify the fuel tank to cause fuel dirt and pollution.
5. Strong reliability. It can also work normally in harsh environments, moisture-proof, acid-proof, flame-retardant, anti-interference, and intelligent.

The product can be used alone, use the auxiliary display screen to directly view the data, and can also be used in conjunction with the GPS device to transmit the data to the background through the GPS device for data statistics, report analysis and query.

Application

- Internet of vehicles solutions
- Industrial control - textile mills
- Rainwater monitoring
- Road water monitoring

Technical Parameter

No.	Item	Introduction
1	Working Voltage	DC 9V~36V.
2	Working Temperature	-30℃~+80℃
3	Storage temperature	-40℃~+85℃.
4	Measure Range	3~100cm (2m can be customized).
5	Maximum power consumption	0.8W/12VDC
6	Measurement accuracy	±0.5%FS
7	Measurement resolution	0.1mm
8	Inbreaking Protection	IP67
9	Peripheral interface	RS232 / RS485 / 0-5V / 4-20mA
10	Tank Materials	conventional fuel tanks such as aluminium alloy/iron/plastic
11	Communication port parameter	default baud rate is 9600 (the baud rate can be configured), no parity bit, 8 data bits, 1 stop bit, and no flow control.

Note: About the measurement range:

- For 5mm thick Q235 type steel plate, with No. 0 diesel, the measuring range is 3~100cm
- The rest is based on the actual height measured, depending on the material and thickness of the container.

Wiring

Colour	Function	Description
Red	Positive pole of power supply	9~36VDC
Black	Negative pole of power supply	
Yellow	TXD	RS232: transmitting terminal of the device
Blue	RXD	RS232: receiving terminal of the device
Brown	B	+V
Purple	A	+OUT
Green	AOUT	Analog voltage output
Black	GND	